

DRAFT

FINDING OF SUITABILITY

FOR EARLY TRANSFER

(FOSET)

940 ACRE PARCEL

VOLUNTEER ARMY AMMUNITION PLANT

CHATTANOOGA, TN

30 JUNE 2000

[ENVIRONMENTAL MANAGEMENT OFFICE]
VOLUNTEER ARMY AMMUNITION PLANT (VOLUNTEER)
CHATTANOOGA, TENNESSEE

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FOR THE
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1.0 INTRODUCTION

Volunteer Army Ammunition Plant (VOLUNTEER) is a Government Owned/Contractor Operated (GOCO) facility located in eastern Hamilton County, Tennessee, approximately 10 miles northeast of the City of Chattanooga's central business district. The facility was used primarily for the production and storage of trinitrotoluene until 1990. The U.S. Department of the Army (Army) declared to the U.S. General Services Administration (GSA) that VOLUNTEER was excess to its needs, making the facility available for disposal. A transfer in ownership of 940 acres of VOLUNTEER prior to Army's completion of all necessary environmental remediation activities on that 940 acres is required in order to achieve efficient reutilization of this facility and meet the reuse needs of the City of Chattanooga and Hamilton County (collectively "the City and County"). For purposes of convenience herein, the United States of America will be referred to as the "Government".

When a federal agency transfers to an entity other than another federal agency real property on which hazardous substances are known to have been released or disposed of or stored for one year or more, the deed must contain a covenant warranting that all remedial action necessary to protect human health and the environment has been taken before the date of transfer. However, for federal property which has not been listed on the National Priorities List (NPL), Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. 9620(h)(3)(C), authorizes the Governor of the State to approve the deferral of the covenant requirement, upon the satisfaction of certain enumerated conditions. VOLUNTEER is not listed on the NPL. One of the conditions is that the request be supported by assurances that all remedial action found to be necessary will be accomplished by the Army.

The purpose of this Finding of Suitability for Early Transfer (FOSET) is to document the environmental suitability of the proposed property transfer consistent with the U.S. Department of Defense policy and CERCLA, Section 120(h)(3)(C) for the transfer of property prior to completion of all remedial action.

2.0. DESCRIPTION OF PROPERTY TO BE TRANSFERRED

The property proposed for transfer at this time consists of 940 acres of the 6,350 +/- acres of land at VOLUNTEER (the Property). The 940-acre parcel includes 103 buildings (97 of which are concrete igloos). The Property is improved with several buildings and contains a pine timber plantation. A site map showing the boundaries of the Property within the VOLUNTEER site is provided as **Enclosure 1**.

Environmental investigation and cleanup activities are continuing on the Property. A

remedy will not be in place for all areas of concern on the Property prior to the date of transfer. However, there are portions of the Property where existing investigation and sampling indicates that all appropriate and necessary response actions have been completed, and the Government may provide the CERCLA covenant that all remedial action necessary to protect human health and the environment has been taken. This area is referred to as Parcel A (Encl 1A) and consists of approximately 680 acres. The remaining areas on the Property is where further investigation and/or remediation is required and is referred to as Parcel B (Encl 1B) and consists of approximately 260 acres. The exact areas subject to being classified as Parcel A or Parcel B may change prior to submission of the final FOSET, based on further investigation by the Army and discussions with the Tennessee Department of Environment and Conservation. The interim restrictions as set forth in Section 6.2.1 therein and other provisions of this FOSET will apply only to the portions of the Property ultimately identified as Parcel B.

3.0. NATURE AND EXTENT OF CONTAMINATION IMPACTING THE PROPERTY

Based on the following investigations, studies, and documents, as well as site visits, the Army has identified the areas on VOLUNTEER which may contain CERCLA hazardous substances and may require further investigation and/or remediation. The information provided is a result of a complete search of agency files during the development of these environmental surveys.

- Environmental Baseline Survey, VOLUNTEER Army Ammunition Plant, October, 1999
- EBS Supplement, prepared by the General Services Administration, November 1999
- **Enclosure 2** contains a complete list of VOLUNTEER environmental studies.
- **Enclosure 3** contains the Tennessee Department of Environment and Conservation (TDEC), Site Investigation Report, dated April 6, 2000.

3.1 Surface Contamination Areas.

3.1.1 Known Solid Waste Management Units (SWMUs). -The entire property lies within the Old Storage Area (VAAP-5). The Old Storage Area compasses 1,133 acres in the western-most part of the magazine area, which is located on the eastern half of VOLUNTEER. No contamination requiring further investigation and remediation was identified in the old storage area during the PA/SI, except for one small are of approximately 300 sqft, near the railcar loading area. This area contains approximately two tons of soil, which is scheduled to be removed in FY 2001.

3.1.2 Parcel B Areas. Soil sampling in the Spring 2000 by the State of Tennessee revealed the presence of elevated levels of PAH to PCBs in selected location within Parcel B on the Property. These areas are identified in **Enclosure 3** . In addition to removal of these known hotspots, the Army will conduct further study in conjunction with the State of Tennessee.

3.2 Groundwater Contamination

Many areas of VOLUNTEER overlay areas of known or suspected groundwater contamination. Groundwater contamination is believed to exist under some or all of the Property. No major rivers are located at VOLUNTEER. However, surface water flows from VOLUNTEER at various points around the perimeter via perennial and intermittent streams. VOLUNTEER contains six major drainage basins. Poe Branch, a perennial stream, drains the largest basin within VOLUNTEER. This stream drains the Old Magazine Storage Area as well as most of the southern part of the Summit Knobs region and exits VOLUNTEER to the south, where it joins Friar Branch approximately 1 mile south of the facility boundary.

From geologic mapping, drill data, and hydrogeologic data collected from facility monitoring wells and piezometers, groundwater in the immediate vicinity of VOLUNTEER occurs in a complex aquifer system comprised of folded and faulted carbonate rocks of the Knox Group and Consauga Group and the overlying residuum. Groundwater flow is significantly affected by lithology and geologic structure, topography, precipitation, and water levels in Chicamauga Reservoir. Groundwater flow occurs in conditions ranging from unconfined, in elevated areas undergoing recharge, to semiconfined or confined in generally low-lying discharge areas.

During March, 2000, groundwater samples were collected from the 11 groundwater monitoring wells (GW) installed at the 940 acre parcel plus two existing wells, 522-20 and 522-21. Sampling and analysis utilized the EPA current promulgated methods as defined by SW-846. Samples were analyzed for nitroaromatics, VOCs, SVOCs, organochlorine pesticides and PCBs, organophosphorus pesticides, herbicides, arsenic, lead, cyanide, and nitrate. The analytical results for analytes detected are displayed in Enclosure 3.

4.0 ANALYSIS OF EXPECTED FUTURE USE DURING DEFERRAL PERIOD

Consistent with past use of the property, non-residential use is expected on the Property. GSA negotiated a sale with the City and County for the Property, which was approved by the Congressional Committee on Government Reform and Oversight. The City and County plan to utilize the Property to further their economic development initiatives. The City and County intend to use the Property for non-residential, industrial and commercial purposes, to be reflected in local zoning ordinances, land use plans, and Tenant Restrictions and Covenants. .

4.1 Non-Residential Use

The Property will contain a restriction to non-residential use. Residential or unrestricted use will not be permitted unless acceptable to the applicable regulatory agency(s).

4.2 Risk Analysis

With the appropriate reservations, restrictions, covenants, and controls discussed in Sections 6.1 and 6.2, below, the continued investigation and perhaps remediation of Parcel B and use of Parcel B for industrial purposes after transfer of title will not present a reasonable likelihood of exposure to hazardous substances to workers, visitors, and others present at the site

In addition to this restriction to non-residential use, Parcel B will have interim restriction to preclude any risk of unreasonable exposure to the public or interruption of remediation efforts while the property is being further investigated or remediation is ongoing. As further explained

in section 6.2.1, the Grantee will be restricted from soil disturbance activities in Parcel B, unless specifically approved by TDEC.

The Grantee is precluded from using or accessing groundwater on the Property unless the groundwater has been tested and approved for the specific use by TDEC . The groundwater restriction is further explained in section 6.1.4.

5.0. RESPONSE/CORRECTIVE ACTION AND OPERATION AND MAINTENANCE REQUIREMENTS:

The Army's environmental investigation and remediation of hazardous substances at VOLUNTEER has been conducted in accordance with the Department of Army Installation Restoration Program (IRP), as part of the Defense Environmental Restoration Program, 10 U.S.C. §§2701 – 2708, and consistent with CERCLA Section 120 and Executive Order 12580, dated January 23, 1987, as amended. If the Property is transferred to the City and County, the ongoing environmental investigation and remediation of hazardous substances and conditions on the Property after the transfer will be accomplished by the Army.

6.0 CONTENTS OF DEED OR TRANSFER AGREEMENT

6.1 Contents of Deed

As required by CERCLA Section 120(h)(3)(A), the United States shall include the following language in the deed to be provided to the Grantee of the property. The United States may make minor, non-substantive changes in the language, but shall advise TDEC of such changes prior to closing.

6.1.1 Notice

Pursuant to Section 120(h)(3)(A)(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA)(42 U.S.C. §9620(h)(3)(A)(i), notice is provided that, based upon a complete search of agency files, **Enclosure 4** provides notice of: (1) the type and quantity of hazardous substances that were known to have been released or disposed of or stored for one year or more on the property; (2) the time such storage, release or disposal took place; and, (3) a description of remedial action taken, if any.

6.1.2 Covenant

Grantor warrants that it shall take any additional response action found to be necessary after the date of this conveyance regarding hazardous substances located on the Property on the date of this conveyance.

(1) This covenant shall not apply with respect to any portion of the Property as to which Grantee, its successor(s) or assign(s), or any successor in interest is a Potentially Responsible Party (PRP) immediately prior to the date of this conveyance; or

(2) In the event Grantee, its successor(s) or assign(s), seeks to have Grantor conduct or pay for any additional response action, and, as a condition precedent to Grantor incurring any

additional cleanup obligation or related expenses, the Grantee, its successor(s) or assign(s), shall provide Grantor written notice of such a claim, and provide credible evidence that the associated contamination existed prior to the date of this conveyance. Grantor shall have 45 days within which to respond to the notice of such claim.

6.1.3 Access

The deed provision contained in 6.1.4 will provide the Grantor with access.

6.1.4 Reservations, Restrictions, and Covenants.

The Grantee will be limited to non-residential use of the Property and may not access groundwater. In the event the Grantee, its successor or assignee wish to change one or both of these restriction, the respective moving party must obtain the concurrence of both the Army and the applicable regulatory agency of the State of Tennessee. The following language will be utilized in the deed:

By agreement between the Grantor and Grantee, and consistent with current land use planning, the intended use of the property is for non-residential, commercial and industrial purpose. Therefore, the Property is conveyed subject to the following restrictive covenants which shall run with the land and shall be binding on all parties having any right, title, or interest in the Property or any part thereof, their heirs, successors, successors-in-title, and assigns, and shall inure to the benefit of each owner thereof, the general public, and the State of Tennessee, the City of Chattanooga, Tennessee and Hamilton County, Tennessee and the respective successors and assigns of such parties. Further, nothing herein in this section shall be interpreted as imposing an obligation or requirement on the Grantor to monitor Grantee's or its successors or assignees, use of the property to ensure compliance with the non-residential use and groundwater restrictions herein. If the Grantee, its successors, or assignees wishes to change the land use of the Property, then the Grantor and Grantee agree that all costs associated with the change in land use will be borne by the Grantee, its successors or assigns and not the Grantor.

Prior to any part of the Property being used for residential use, such as and including, a residence, domicile, daycare, school, or church, etc., the Grantee, its successors and/or assigns must notify the Tennessee Department of Environment and Conservation (TDEC) and the Army and must demonstrate to the satisfaction of TDEC that any such proposed use will not pose a danger to public health, safety or the environment. Any approval granted by TDEC for the restricted uses shall be in writing, must contain a reference to this instrument and shall be maintained in TDEC's files and will be effective upon the Grantee filing such approval, at Grantee's expense, at the Register's Office for Hamilton County, Tennessee.

Prior to the drilling of any well on the Property, the Grantee, its successors, and/or assigns must notify the TDEC and the Army and must demonstrate to the satisfaction of TDEC that the proposed well will not pose a danger to public health, safety or the environment. Any approval granted by TDEC for the restricted uses shall be in writing, must contain a reference to this instrument and shall be maintained in TDEC's files and any approval for a proposed well will be effective upon the Grantee filing such approval, at Grantee's expense, at the Register's Office for Hamilton County, Tennessee. Grantee shall furnish a copy of such approval to the Army.

The Grantor reserves for the United States Army and the TDEC a right of access to all portions of the Property for environmental investigation, remediation or other corrective action. This reservation includes the right of access to and uses of, to the

extent permitted by law, available utilities at reasonable cost to the Grantor or its successors and assigns. Pursuant to this reservation, the United States Army, the TDEC and their officers, agents, employees, contractors and subcontractors shall have the right (upon reasonable notice to the owner and any authorized occupant of the Property) to enter upon the Property and conduct investigations and surveys, to include drillings, test-pitting, borings, data and record compilation, and other activities related to environmental investigation and to carry out remedial or removal actions as required or necessary under applicable authorities, including but not limited to monitoring wells, pumping wells, and treatment. Any such entry, including such activities, responses or remedial actions, shall be coordinated with the Grantee or its successors and assigns and shall be performed in a manner which minimizes interruption with Grantee's activities on the Property. Nothing herein shall be construed as limiting TDEC's right of entry, pursuant to any applicable statute, regulation or permit.

The Grantee or its successors and assigns shall not hinder or prevent the United States Army from properly constructing, upgrading, operating, maintaining and monitoring any groundwater treatment facilities or groundwater monitoring network or engage in any activity that will disrupt or hinder required environmental investigation, response action, including remediation, or corrective action or oversight activities. Any such entry, including such activities, responses or remedial actions, shall be coordinated with the Grantee or its successors and assigns and shall be performed in a manner which minimizes interruption with Grantee's activities on the Property.

These restrictive covenants may be amended or terminated by an instrument in writing executed by the Grantor, the owners of the Property and the TDEC or such entities' respective successors or assigns. No amendment to or termination of these restrictive covenants shall be effective until such amendment or terminating instrument is recorded in the Register's Office for Hamilton County, Tennessee.

6.2 Response Action Assurances Required by CERCLA Section 120(h)(3)(C):

6.2.1 Interim Environmental Restrictions to Protect Public Health and the Environment and Prevent Interference with Remediation

The following covenants and restrictions shall apply until all necessary remediation required is completed and the United States provides the covenant required by CERCLA section 120(h)(3)(A)(ii) that all necessary remedial action has been taken.

6.2.1.1 Ground Disturbance Restriction

Parcel B, although not characterized as a SWMU, has been identified as requiring further investigation and possibly remediation prior to the Army granting the CERCLA Covenant. The Grantee will be restricted from any physical or structural changes or ground surface disturbance until the area is investigated. Upon satisfactory completion of any necessary remediation, these restrictions will be removed by the Army. As the result of specific remedial activities being completed on these parcels other additional restrictions may be imposed by regulatory agencies as part of the remedial process.

The following clause language will be utilized:

Grantee, for itself and its successors and assigns, covenants and agrees that no physical or structural change(s) or disturbance of ground surface shall be permitted in or on Parcel B.

(1) In the event Grantee, its successor(s) or assign(s), desires to conduct or permit any use inconsistent with this restriction, prior to the completion of all necessary remedial action, then Grantee, its successor(s) or assign(s), shall be required to obtain written permission of the Army and the Tennessee Department of Environment and Conservation (TDEC) for such other uses and shall further comply with all laws, rules, regulations and ordinances pertaining thereto, including but not limited to zoning requirements and the requirements of all applicable regulatory authorities.

(2) Upon written request by Grantee, its successor(s) or assign(s), Grantor agrees, upon completion of any necessary, required remedial action under this paragraph, to remove this specific restriction.

These restrictive covenants may be amended or terminated by an instrument in writing executed by the Grantor, the owners of the Property and the TDEC or such entities' respective successors or assigns. No amendment to or termination of these restrictive covenants shall be effective until such amendment or terminating instrument is recorded in the Register's Office for Hamilton County, Tennessee.

6.2.1.2 Non-Interference with Response Action

The following provisions will be included in all deferred covenant deeds to prevent interference with the continuing response program at Property

Grantee covenant and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that it or any party occupying the Property shall not disrupt or prevent the Army and its officers, employees, agents, contractors and subcontractors, and any other authorized party or entity from conducting required remedial investigations, response actions or oversight activities or from the proper and necessary construction, upgrading, operating, maintaining and monitoring of any groundwater treatment facilities or groundwater monitoring network on the Property or adjoining property.

6.3 Contents of the Transfer Agreement:

As required by CERCLA Section 120(h)(3)(C)(i)(II), the Army shall include the following language in the transfer agreement.

(1) All necessary response actions on the Property will be taken by the Army. The Army will identify the schedules for investigation and completion of all necessary response actions(s) as approved by the TDEC. The most recent projected work completion schedule associated with such actions is included in Enclosure 5. The work completion schedule will be reviewed by the Army and TDEC and updated as necessary for environmental investigation and remediation.

(2) The Army has identified sufficient funds in its FY 2000 appropriation for completion of the investigations identified in Enclosure 5. The Army shall submit on an annual basis through established channels, appropriate budget requests to the Director of the Office of Management and Budget that adequately address those agreed upon schedules for further investigation and completion of all necessary response actions, if any, subject to congressional authorizations and appropriations.

(3) In accordance with CERCLA Section 120(h)(3)(C)(iii), when all response action necessary to protect human health and the environment under non-residential use

standards with respect to any substance remaining on the Property on the date of transfer has been taken, the United States shall execute and deliver to the transferee an appropriate document containing a warranty that all such response action has been taken.

7.0 RESPONSIVENESS SUMMARY

The Army provided public notice of its contemplated use of the Early Transfer Authority and its intent to request approval of a covenant deferral, by publishing a notice in local newspapers, on _____, 2000. During the public comment period, the Army received comments from the public and regulatory agencies on the draft FOSET. The Army's response to these comments is attached as **Enclosure 6** and incorporated into the final document where appropriate.

8.0 EFFECT OF FOSET

8.1 Natural Resources Restoration and Damage Assessment

It is understood that State concurrence with this request for covenant deferral shall not serve to trigger the Statute of Limitations provided for under CERCLA Section 113(g)(1), nor otherwise release Army from any liability or waive any claim that the State of Tennessee may have pursuant to any provision of State or federal law, including any claim for damages occasioned by any injuries to, destruction of, or loss of any natural resource as may have resulted from the Army's past use and operation of VOLUNTEER.

8.2 Support of Restoration Advisory Board

The Army established a Restoration Advisory Board (RAB) for VOLUNTEER. The purpose of RAB establishment was to provide a forum for cooperation between Army, TDEC, the U.S. Environmental Protection Agency (EPA), and local community representatives, on proposed site/resource restoration related activities at VOLUNTEER. Subject to obtaining appropriated funds for such purposes, the Army agrees to continue to support RAB activities until such time as the purposes or use of that body have been satisfied. The Commissioner of TDEC shall be provided advance timely notice of RAB activities including meeting, proposal decisions and other significant functions.

8.3 Remediation Responsibilities

Nothing in this FOSET shall be construed to alter the obligations of the Army and/or any Potentially Responsible Party to complete all necessary response actions at VOLUNTEER as required by applicable environmental laws and regulations and the appropriate regulatory authority.

9.0 SUITABILITY DECLARATION:

As the cognizant Department of the Army official authorized to make such determination, I, the undersigned, conclude that all Department of the Army requirements to reach a finding of suitability for early transfer of the Property to the City of Chattanooga, Tennessee and Hamilton County, Tennessee for redevelopment as non-residential property has

been met subject to the prohibitions, restrictions, and covenants discussed in this FOSET and its attachments.

With the covenants, conditions, and restrictions set forth in this FOSET, the Property can be transferred in its present condition for its intended purposes without unacceptable risk to human health and the environment and without interference with the on-going Volunteer AAP environmental restoration program.

Date

Raymond J. Fatz
Deputy Assistant Secretary of the Army
(Environment, Safety, and Occupational Health)
OASA (Installation and Environment)

Enclosures:

1. Site Maps (3)
 - 1.A Areas where all necessary response action has been completed
 - 1.B Areas which require further investigation and possible remediation
2. Environmental Studies
3. TDEC, Site Investigation Report, dated April 6, 2000
4. Notice of Hazardous Substances Storage, Release or Disposal
5. Letter from TDEC to Army, dated 16 June 2000
- 6 Response Summary to Comments